

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A fuel cell system comprising:
 - a fuel cell; and
 - a hydrogen gas supply portion which supplies the fuel cell with hydrogen gas,
wherein
the hydrogen gas supply portion ~~is provided with~~ including an odorant treatment portion which treats an odorant in a mixed gas containing the hydrogen gas and the odorant ~~to obtain the hydrogen gas to supply to the fuel cell~~, wherein the odorant treatment portion includes a carrier that carries a porous adsorbent for adsorbing the odorant contained in the mixed gas and a catalyst for promoting decomposition of the odorant adsorbed ~~in~~by the porous adsorbent, and
~~the odorant treatment portion has a function of supplying the fuel cell with hydrogen gas by capturing the odorant in the mixed gas and a function of recovering its capturing capacity by decomposing the captured odorant.~~
2. (Canceled)
3. (Currently Amended) The fuel cell system according to claim 2, wherein the odorant treatment portion further includes a decomposition support portion which decomposes the odorant adsorbed ~~in~~by the porous adsorbent.
4. (Previously Presented) The fuel cell system according to claim 1, wherein the adsorbent contains activated carbon.
5. (Previously Presented) The fuel cell system according to claim 1, wherein the adsorbent contains zeolite.

6. (Previously Presented) The fuel cell system according to claim 1, wherein the catalyst contains a noble metal catalyst.

7. (Currently Amended) The fuel cell system according to claim 3, wherein the decomposition support portion includes an oxygen gas supply portion

which supplies the odorant treatment portion with oxygen gas,

the odorant treatment portion further includes a first flow path switching portion which selectively introduces the mixed gas and the oxygen gas into the odorant removal treatment portion, and

the odorant treatment portion oxidizes and decomposes the adsorbed odorant by means of the oxygen gas supplied from the oxygen gas supply portion.

8. (Previously Presented) The fuel cell system according to claim 7, further comprising:

a control portion which controls the odorant treatment portion,

wherein

the control portion controls the oxygen gas supply portion and the first flow path switching portion to supply the odorant treatment portion with the oxygen gas during a period in which an estimated amount of the odorant adsorbed by the odorant treatment portion is equal to or larger than a predetermined amount with operation of the fuel cell system being stopped.

9. (Currently Amended) The fuel cell system according to claim 7, further comprising:

a post-decomposition gas passage through which post-decomposition gases discharged from the odorant treatment portion ~~flows~~ flow when the odorant treatment portion decomposes the adsorbed odorant; and

a second flow path switching portion which introduces the hydrogen gas into the fuel cell if the hydrogen gas is discharged from the odorant treatment portion, and introduces the post-decomposition gases into the post-decomposition gas passage if the post-decomposition gases are discharged from the odorant treatment portion.

10. (Previously Presented) The fuel cell system according to claim 9, further comprising:

a control portion which controls the odorant treatment portion,
wherein

the control portion controls the oxygen gas supply portion and the first flow path switching portion to supply the odorant treatment portion with the oxygen gas, and controls the second flow path switching portion to introduce the post-decomposition gases discharged from the odorant treatment portion into the post-decomposition gas passage during a period in which an estimated amount of the odorant adsorbed by the odorant treatment portion is equal to or larger than a predetermined amount with operation of the fuel cell system being stopped.

11. (Withdrawn-Currently Amended) The fuel cell system according to claim 3, wherein

the decomposition support portion includes a heating portion which heats the odorant treatment portion, and

the odorant treatment portion reduces and decomposes the odorant adsorbed ~~in~~ by the porous adsorbent while being heated by the heating portion, by means of hydrogen gas contained in the supplied mixed gas.

12. (Withdrawn) The fuel cell system according to claim 11, wherein
the odorant treatment portion further includes a post-decomposition gas passage through which post-decomposition gases discharged from the odorant treatment

portion flow during decomposition of the adsorbed odorant, and a flow path switching portion which introduces the hydrogen gas into the fuel cell if the hydrogen gas is discharged from the odorant treatment portion, and which introduces the post-decomposition gases into the post-decomposition gas passage if the post-decomposition gases are discharged from the odorant treatment portion.

13. (Withdrawn-Currently Amended) The fuel cell system according to claim 12, further comprising:

a control portion which controls the odorant treatment portion,

wherein

the control portion controls the heating portion to heat the odorant treatment removal portion and controls the flow path switching portion to introduce the post-decomposition gases discharged from the odorant treatment portion into the post-decomposition gas passage during a period in which an estimated amount of the odorant adsorbed by the odorant treatment portion is equal to or larger than a predetermined amount with operation of the fuel cell system being stopped.

14. (Currently Amended) A hydrogen gas supply unit which supplies a predetermined apparatus with hydrogen gas, comprising:

an odorant treatment portion which treats an odorant in a mixed gas containing hydrogen gas and the odorant to obtain the hydrogen gas to supply to the predetermined apparatus, wherein the odorant treatment portion includes a carrier for treating the odorant, wherein the carrier carries a porous adsorbent for adsorbing the odorant contained in the mixed gas and a catalyst for promoting decomposition of the odorant adsorbed in-by the porous adsorbent;

—wherein

~~the odorant treatment portion has a function of supplying the predetermined apparatus with hydrogen gas by capturing the odorant contained in the mixed gas and a function of recovering the capturing capacity by decomposing the captured odorant.~~

15. (Withdrawn) A method of controlling a fuel cell system, comprising:

supplying an odorant treatment portion with a mixed gas containing hydrogen gas and an odorant, causing the odorant treatment portion to adsorb the odorant contained in the mixed gas, and supplying the fuel cell with the remaining hydrogen gas, wherein the odorant treatment portion includes a carrier that carries a porous adsorbent for adsorbing the odorant contained in the mixed gas and a catalyst for promoting decomposition of the odorant adsorbed in the porous adsorbent;

determining whether or not an estimated amount of the odorant adsorbed by the odorant treatment portion is equal to or larger than a predetermined amount; and

decomposing the odorant adsorbed by the odorant treatment portion if it is determined that the estimated amount of the adsorbed odorant is equal to or larger than the predetermined amount.

16. (Withdrawn) The method according to claim 15, further comprising:

introducing to the outside post-decomposition gases which are produced by decomposing the odorant in the odorant treatment portion and which are discharged from the odorant treatment portion.

17. (Withdrawn) The method according to claim 15, further comprising:

promoting decomposition of the adsorbed odorant by supplying the odorant treatment portion with oxygen gas.

18. (Previously Presented) The fuel cell system according to claim 1, wherein the carrier has a roll structure or a honeycomb structure.